

## ABSTRACT

A method for forming a supported metal-containing powder. The method comprises forming a dispersion of a particulate support in a solution, which comprises a solvent and a dissolved metal. Heat is removed from the dispersion to precipitate the dissolved metal from the solution onto the particulate support. Preferably, enough heat is removed to freeze the solution. Also, the heat is removed is preferably removed from the dispersion by contacting a container containing the dispersion with a cryogenic liquid. After precipitating the dissolved metal onto the particulate support, the particulate support is separated from the solution, preferably by freeze-drying, to yield the supported metal-containing powder, which comprises the particulate support and a precipitated metal thereon.